

Wednesday, 3/8/2006 10:38:09 AM
User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : SHUT-OFF VALVE SHAFT
Job Number : 26114 -2
Estimate Number : 12187
P.O. Number : NIA
This Issue : 3/8/2006 S.O. No. : NIA
Prsht Rev. : NC
First Issue : NIA Type : PURCHASED PARTS
Previous Run : NIA
Written By : SEE COMMENT BELOW
Checked & Approved By : 06.03.08
Comment : est rev A 06.02.06 new issue EC

Part Number : D34695
Drawing Number : D3469 REV.A
Project Number : N/A
Drawing Revision : A
Material : NIA
Due Date : 3/31/2006 Qty: 10 Um: Each

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 OUTSIDE SERVICE OUTSIDE SERVICES



Comment: Sub-Contracting OUTSIDE SERVICES

Issue P/O: 00000768

Email or Ship DXF file to vendor

Laser Cut per Dwg D3469 flat pattern D3469-5F

Material release note required

2.0 D34695 F LOWER PLATE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)
ARM

3.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Receive & Inspect For Transit Damage

Ensure material certification is attached

4.0 QC6 DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

5.0 NAS1031C3W Nutplate



Comment: Qty.: 17.0000 Each(s)/Unit Total : 102.0000 Each(s)

pick:

Qty Part number Description Batch 14 M 19347
17 NAS1031C3W Nutplate M100049

SB 06/04/05 (9)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		One taken for template	W. G. 2011		1	<i>[Signature]</i>	<i>[Signature]</i>

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: *[Signature]* Date: *26/04/06*
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SHUT-OFF VALVE SHAFT

Job Number: 26114

Part Number: D34695

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Deburr if necessary

2-form oval flanges per dwg D3469 using DT8850

3-Spot weld nut plates as per dwg D3469

SB 06/04/05

DP
7

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06/04/06 7

8.0

OUTSIDE SERVICE

OUTSIDE SERVICES



Comment: Sub-Contracting OUTSIDE SERVICES

Issue P/O: _____

Electro Chemically Polish as per Dwg D3479

Ensure Certificate of Conformity is attached

N/A

06/03/06

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

06/04/06 7

11.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/04/06 7

Job Completion



06/04/06

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

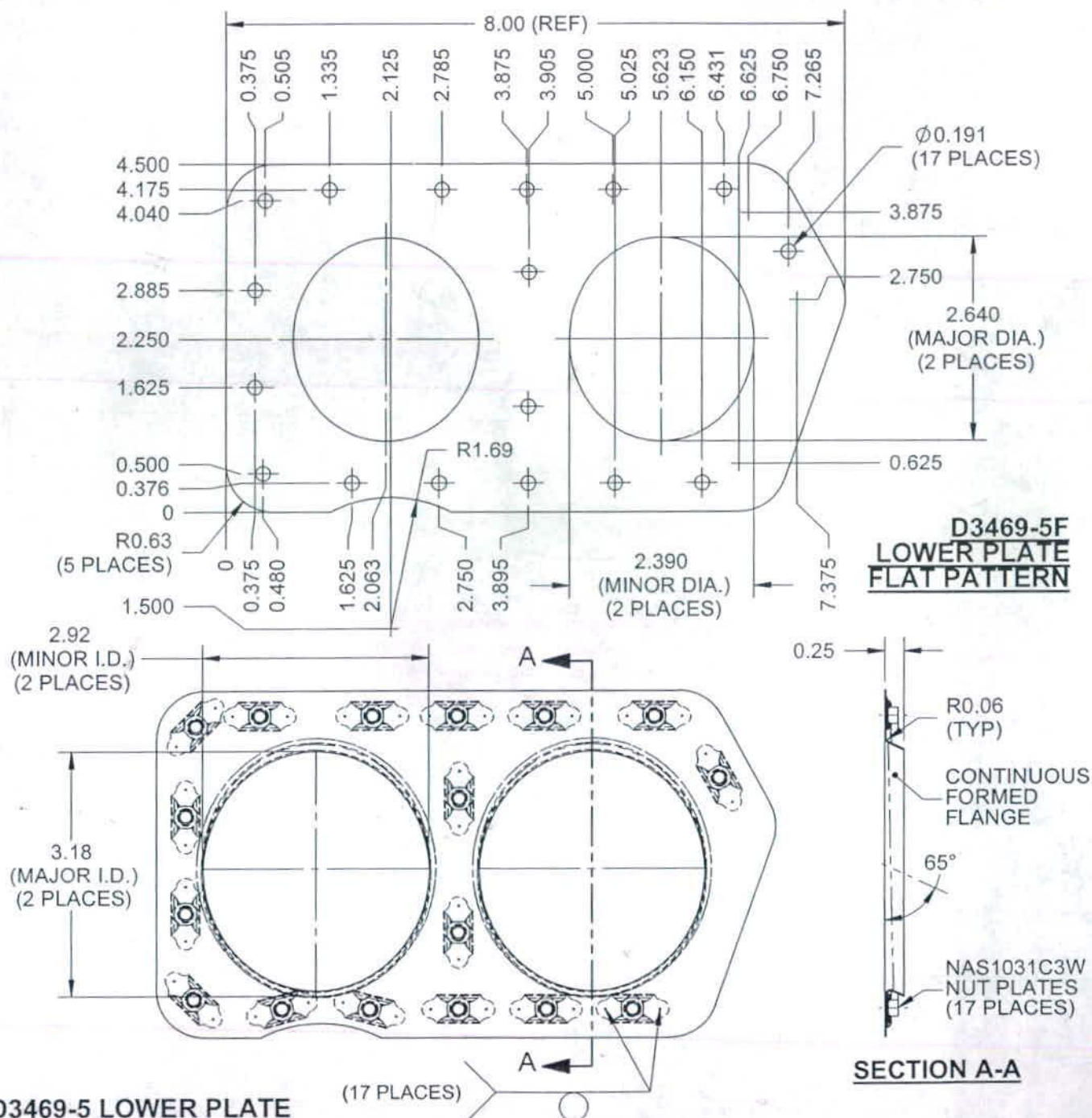
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 26/04/06
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>26/04/05</u>	<u>6</u>	<u>One scrap</u>	<u>VB</u> <u>26/04/05</u>	<u>des lay</u>	<u>VB</u> <u>26/04/06</u>	<u>VB</u> <u>26/04/06</u>	<u>VB</u> <u>26/04/06</u>	<u>VB</u> <u>26/04/06</u>

NOTE: Date & initial all entries

PRELIMINARY ISSUE

DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	REV. A
CHECKED	APPROVED	DRAWING NO. D3469	SHEET 5 OF 5
DATE 05.12.09	TITLE SHUT-OFF VALVE ASS'Y	SCALE 1:2	



D3469-5 LOWER PLATE

NOTES:

- 1) MATERIAL: AISI 304/316 SS SHEET PER MIL-S-5019 (ANNEALED) 2B FINISH 26 GAUGE SS (0.018 THICK)
(REF. DART SPEC. M304S26GA)
- 2) SPOT WELD NUT PLATES PER DART QSI 004
- 3) FINISH: ELECTRO-CHEMICALLY POLISH
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES 0.005 TO 0.010

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3/17/06

604-946-453 ATTN: PETE

03/17/2006 14:36 FAX 604 946 4153
V0711/2006 14:18 FAX 6042729137INDUSTRIAL LASER CUTTING
INTEGRIS METALS002
001/004

3/17/2006 1:57 PAGE 001/002 Fax Server


Ryerson


T-726 P.007/016 F-597

253-280-3638

FROM-INTEGRIS

MAY-17-2005 18:05

		AK Steel Corporation Metallurgical Test Report Coshocton Works Coshocton, OH 43812		Page 1 Lead No. 7410672 SRN No. 7410672											
		INTEGRIS METALS PO BOX 340 MINNEAPOLIS, MN 55440		INTEGRIS METALS 306 'B' STREET ALBURN, WA 98001											
SKID ID SKD713143 SKD713144 SKD713145 SKD713149 TOTAL SKIDS 4		PIECE 1 1 1 1 TOTAL 4		HEAT 7250251 7250251 7250251 7250251 TOTAL 7250251											
PARENT COIL ID 0549919-01 0549919-01 0549919-01 0549919-01 TOTAL 0549919-01		NET WEIGHT 3,445 LBS. 4012 KG. 3,470 LBS. 4013 KG. 3,425 LBS. 4014 KG. 3,401 LBS. 3991 KG. TOTAL NET WEIGHT 13,741 LBS. 16,028 KG.		MILL ORDER NO. 77185-0191 PROCESSOR ORDER NO. 427126-01 BUYER'S ORDER NO. 427126-01 PART NO. 74151497 ENGINEERING UNITS -PRODUCT- METRIC UNITS SIZES 48.000 X COIL											
CHEMICAL ANALYSIS L-Cable Analysis of Heat P-Product Analysis of Parent Coil															
ID	C	MN	P	S	SI	CR	NI	MO	N	CU	CO				
L 7250251	.049	1.39	.027	.001	.35	18.18	8.05	.35	.04	.30	.12				
SHIPPING DATE: 03/13/2005 REMARKS: NO INTENTIONAL ADDITIONS OF MERCURY OR MERCURY COMPOUNDS, RADIUM, ALPHA SOURCE, AND LOW MELTING ALLOYS OR ELEMENTS CAPABLE OF FORMING LOW MELTING ALLOYS WERE MADE THROUGHOUT THE PROCESSING OF THIS MATERIAL.						PRODUCT DESCRIPTION CR SET TYPE 304 STAINLESS #2B FINISH SLIT EDGE * AMS 5513 & ALL TECH REQS HAVE BEEN MET UNLESS NOTED TO OR NOTED OTHERWISE * A SYN A 240 -04 EX PARA 3.1.5 ELONG WILL BE DETERMINED BY ASTM E 8 * ASTM A 490 -01 EX PARA 19.1.1 ELONG WILL BE DETERMINED BY ASTM E 8 EX PARA 26.1.1.3 COIL WILL BE TAGGED ON OUTSIDE ONLY * ASTM A 566 -03 * IN-001 Rev 0, * IN-011 0 * BUYER PART# 74251497 * ASME SA-240 SECTION II PART A (2001 ED, 2002 ADDENDA) EX PARA 3.1.9 ELONG WILL BE DETERMINED BY ASTM E 8 * EN-10204 3.1.5									
PARENT COIL ID	FOR (R/T)	DIR (L, T, D)	COND	% ELONG 2 INCH MEASURED	TENSILE STRENGTH (KSI)	YS. % OFFSET (KSI)	ROCKWELL HARDNESS TAIL	ROCKWELL HARDNESS FRONT							
0549919-02	T	T	ASME	71.0	105.2	37.1	72	74							
*** CONTINUED ON NEXT PAGE ***															

		AK Steel Corporation Metallurgical Test Report Coshocton Works Coshocton, OH 43812		Page 2 Lot# No. 7410672 SRN No. 7410672							
		CUSTOMER INTEGRIS METALS PO BOX 360 MINNEAPOLIS, MN 55440		SHIP TO INTEGRIS METALS 306 "B" STREET AUBURN, WA 98001							
		MILL ORDER NO. 271348-0191 PROCESSOR ORDER NO. 427136-01 BUYERS ORDER NO. 427136-01		PART NO. 74251497 ENGLISH UNITS - PRODUCT - METRIC UNITS .0175 NOM 48.000 X COIL							
PARENT COIL ID	POS (F/T)	DWR (L, T, D)	COND	ASTM A 782 FRACTURE	BEND 180 IT						
0549919-02	T		ASTM	PASS	PASS						
PARENT COIL ID	POS (F/T)	DWR (L, T, D)	COND	%ELONG 2 INCH MEASURED	TENSILE STRENGTH (KSI)	Y.S. 2% OFFSET (KSI)	ROCKWELL HARDNESS TAIL	ROCKWELL HARDNESS FRONT			
0549919-02	F	T	ASTM	71.0	92.8	33.1	B 72	B 74			
PARENT COIL ID	POS (F/T)	DWR (L, T, D)	COND	BEND 180 IT							
0549919-02	F		ASTM	PASS							
<p>THE CHEMICAL ANALYSIS AND PHYSICAL OR MECHANICAL TESTS REPORTED ABOVE ARE CORRECT AS CONTAINED IN THE RECORDS OF THE CORPORATION.</p> <p>ALL TESTING IS DONE IN ACCORDANCE WITH ALL ASTM STANDARDS UNLESS OTHERWISE NOTED.</p> <p>AK Steel Corporation 05/05/2006</p> <p>WITNESSED: <i>Quinn Rayner</i> DATE 05/05/2006 TIME 19:52 PM APPLICATION ENGINEER</p>											



MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN
740 IMPERIAL ROAD NORTH

Page : 1
Heat/Lot : 86K8
TIN : B42748

Sold To: INTEGRIS METALS, LTD.
7910 40TH STREET SE
CALGARY, AB T2C2Y3

Ship To: ***CUSTOMER PICKUP***
4375 14TH STREET NORTHEAST
CALGARY
ABT3E7A9

Vendor Information

Cust PO #: 406824

Chat PO DT: 11/03/05

Specifications

STAINLESS STEEL SHEET, COLD ROLLED, ANNEALED AND PICKLED.
ASTMA240/04a 480/04a, 666/03, ASME SA240/04-A05, 480/04-A05, SA666/04
QQS766D-A X 11G PRM, AMS5513H X MRK&FIN, MIL5059D, AMD3, X CRWN MEAS
CORROSION: ASTM A262/02aB; 180Bend-OK
Buyer Part: 4288441
304 2B .1305 IN 48 IN 96 IN
Country of Origin: UNITED STATES

Mechanical Tests

		UOM	L	O		UOM	L	O
Yield Strength - 0.2% Offset	40	KSI	F	TRANSV				
Tensile Strength (UTS)	93.3	KSI	F	TRANSV				
Rockwell B	85		F	TRANSV				
Pct Uniform Elong 2 In/50mm	57.01	PCT	F	TRANSV				
Rockwell A	85		T	TRANSV				

Chemical Composition

C Carbon-Pct	.059	CR Chromium-Pct	18.360
CU Copper-Pct	.342	MN Manganese-Pct	1.643
MO Molybdenum-Pct	.285	N Nitrogen-Pct	.037
NI Nickel-Pct	8.150	P Phosphorus-Pct	.029
SI Silicon-Pct	.289		

Comments

MATERIAL TEST REPORT

From: NORTH AMERICAN STAINLESS CANADA, IN
740 IMPERIAL ROAD NORTH

Page : 2
Heat/Lot : 86K8
TIN : B42748

Material free from mercury contamination. No weld repairs.
EN 10204 3.1 PED 97/23/EC Annex1, Para. 4.3 Q08763F Cond A
This document certifies the material has been tested in
accordance with applicable specifications described herein
and has met those requirements.

QA by ERIC HESS 02/01/2006

Miscellaneous Data

GUELPH, ONT. K123
Control #: S/C60214
Part #: 74271441
.135 X .48 X .96

Date: 03/17/06

SOLD TO: INS. LAFER

TO 110880

S/O 90-374786 - 02

[Signature] 3/17/06

The Chemical Analysis and Mechanical Test
data was received via EDI from the above
mentioned vendor.

INTEGRIS METALS, LTD.

004/004
002

INTEGRIS METALS

03/17/2006 14:18 FAX 6042729137
04/20/2015 08:27 FAX

